

Plain Face Circular Diffusers

RWK

Introduction

The Waterloo Circular Diffuser type RWK has an adjustable radial diffusion pattern and provides excellent induction characteristics. The diffuser and face-plate are manufactured from aluminium and the plenum is zinc steel. The shape of both the plenum and the adjustable face-plate ensure an excellent air pattern, and the internal control disc can also be adjusted to achieve high induction rates and a low sound power level.

Product Description

RWK Circular supply diffuser with plain face-plate

RWK-R Circular return diffuser with plain face-plate

UKDV Supply air plenum

UKDVI Insulated supply air plenum

UKRV Return air plenum

UKRVI Insulated return air plenum

Features

- Supply and exhaust applications for heating, cooling and isothermal conditions
- Excellent induction characteristics
- Variety of air patterns
- Suitable for modular ceiling systems

Finishes

PPM9010 (RAL 9010 Matt - 20% Gloss White)

Other colours available on request

Advantages

- Excellent aerodynamic performance
- No ceiling effect required
- Short throw

Selection Criteria

Ceiling Height 2.7m

Temperature Differential -11K

Average room velocity V_r 0.15m/s

Noise level is based on diffuser sound power level less 8dB room absorption.

All selections include the plenum

Selection Example RWK-125

Air Volume 42 l/s

Throw 1.1 m

Pressure Drop 29 Pa

Noise Level 25 dBA

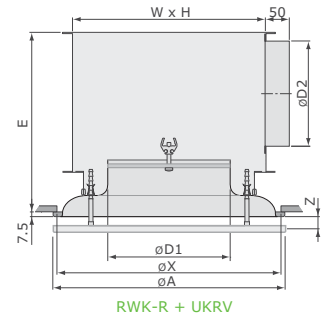
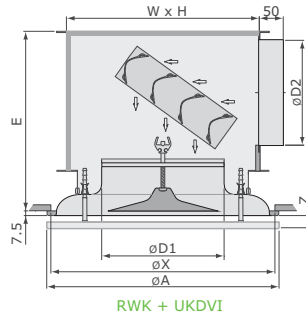
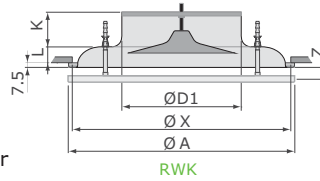
Nom Size Ø D1	W x H	Ø D2	Ø A overall	Ø X aperture	E	K	L
100	210x210	100	190	175	205	55	12.5
125	210x210	125	230	215	215	60	20.0
160	310x310	160	270	255	295	65	27.5
200	310x310	200	370	345	295	70	27.5
250	410x410	250	470	440	365	75	35.0
315	510x510	315	570	535	435	90	35.0

Note: Z = 19/26.5/34mm (depending on face-plate setting)

Face-plate	Z (mm)	'T' Throw(m)	Pressure (Pa)	Noise level (dBA)
Height	19	x 1.0	x 1.0	0
Corrections	26.5	x 0.9	x 0.6	- 1
	34	x 0.8	x 0.5	- 2

ORDER EXAMPLE

Type RWK/250/UKDV/250
 Diameter
 Plenum Type
 Plenum Spigot Diameter



Performance Table

RWK		Supply						Exhaust					
m³/h	l/s	100 Dia	125 Dia	160 Dia	200 Dia	250 Dia	315 Dia	100 Dia	125 Dia	160 Dia	200 Dia	250 Dia	315 Dia
50	14	T	0.5										
		P _s	6					7					
		L _w	-					-					
75	21	T	0.6	0.5									
		P _s	20	7				17					
		L _w	-	-				-					
100	28	T	0.8	0.7									
		P _s	36	12				27	10				
		L _w	25	-				-	-				
125	35	T	1.0	0.9	0.7								
		P _s	50	20	8			39	16	9			
		L _w	29	-	-			26	-	-			
150	42	T		1.1	0.8								
		P _s		29	12			51	22	13			
		L _w		25	-			32	-	-			
200	56	T		1.3	1.1								
		P _s		48	18			40	23	8			
		L _w		36	-			25	-	-			
250	69	T			1.4	1.3							
		P _s			28	12			60	36	14		
		L _w			28	-			31	26	-		
300	83	T			1.7	1.5	1.4						
		P _s			40	16	7			53	20		
		L _w			32	-	-			25	-		
400	111	T				1.9	1.7						
		P _s				30	13				36	12	
		L _w				29	21				-	-	
500	139	T				2.3	2.1	1.2					
		P _s				45	20	7			56	18	
		L _w				34	31	-			29	26	
600	167	T					2.5	1.5					
		P _s					30	10			80	26	10
		L _w					36	26			33	29	-
750	208	T					3.1	2.1					
		P _s					48	15			39	14	
		L _w					45	33			35	28	
1000	278	T						2.7					
		P _s						30				24	
		L _w						39				34	
1250	347	T							3.5				
		P _s						54				32	
		L _w						45				37	